be present on Sept. 17th, when the Petrels first make their appearance; and again, on another occasion, when they come back to lay their eggs. An all-night watch will surely elicit facts worthy of observation at these periods.

## XIX.—Further Notes on the Birds of Zululand. By R. B. and J. D. S. WOODWARD.

Our journey in Zululand of 1894-95 was described in a previous communication to 'The Ibis' (see Ibis, 1897, pp. 400-422). On the 24th February, 1896, we re-entered Zululand, this time leaving our cart and oxen behind; it being our intention to visit the "fly-country" in the Lubombo district, where cattle will not live. Meeting a transport-carrier, who was taking two waggons with corn to sell beyond the Black Umfolosi, where the natives were very short of food, we made arrangements with him to convey us on to the Umgome forest, just within the boundary of the Transvaal and a portion of the country obtained by the Boers from Dinizulu after the war. We went to Eshowe by the new waggon-road, and leaving that town we soon reached the Umhlatoosi, the valley of which looked scorched up, and commenced the big hill on the far side—the worst hill we have seen in Zululand, though the road is kept in good repair. We saw some patches of good corn on these high lands which had escaped the ravages of the locusts: the crops not having been completely destroyed, as was the case in the valleys. Passing through Melmoth and wading the Infule, a tributary of the Umhlatoosi, we shortly after sighted the Umfolosi, and, descending its long hill, crossed over and outspanned three miles beyond. The river was very low on account of the drought. Ascending another bad hill and crossing grassy highlands, where our driver shot a steinbok, we reached the Umbegamusa drift, also dried up, and came to a halt at the old camping-ground. We then went on to the Ivuna store, and thence up to the Nongoma heights, where the Magistracy is situated. In the distance we could see

the hvati-bushes where we were located last year, but the sea is not visible. Trekking through bare grassy country, we mounted higher and yet higher hills till we crossed the boundary of the Transvaal, and soon came to the great mountain-forest called Umgome. We had at last arrived at a land of verdure, where, during our stay, we were frequently enveloped in mist, though at this season there is little rain. We obtained a great variety of butterflies, but few birds, for the latter do not seem partial to these damp high woods. This forest is twelve miles long by four or five broad, and contains much valuable timber.

Here we found plenty of Pigeons in the trees. Of these, Columba arquatrix is a fine bird, 13 inches in length, with bright yellow bill and legs, and from its dark plumage is popularly known as the "Black Pigeon." It seems to confine itself to the woods. We see more of them in the winter, when the berries are ripe; we have noticed tree-seeds in individuals killed. The Green Pigeon (Treron delalandii) confines itself mostly to the high trees and is seldom seen on the ground. It is easily shot when engaged in feeding on wild figs or the fruit of the water-boom, to which it is very partial; it is usually fat and the flesh is delicate, though it seems almost a pity to kill such a pretty bird for the pot. We have seen it tame, and it looks well in a cage. This bird has a curious musical cry, and does not "coo" like an ordinary Pigeon.

The Rock-Pigeon (Columba phæonota) builds in the kranzes. At the breeding-season it alights on the ledges of the rocks and keeps up a sonorous cooing, bowing to its mate after the manner of the occupants of the dovecot. It flies about in large flocks, and in the early summer it pulls up the young corn as soon as it appears above the ground, doing considerable damage to the farmer, unless kept in check by the shot-gun. We have knocked over a number with one discharge and found them plump and good eating.

The White-breasted Dove (*Tympanistria bicolor*) is abundant here, as in all the woodlands. It is a neat little bird, 8 inches in length. It has a soft voice, which is heard

in the heat of the day, when most other birds are silent. It is naturally half-tame, and even old birds when caught soon become contented and happy in confinement. A friend of ours used to keep a number of these little Doves in a large cage; they were caught in the garden, where they came attracted by the fruit of the mulberry-fences. We have found their nests in low trees, where they make a small platform of sticks, and lay two yellowish-white eggs.

The pretty South-African Oriole (Oriolus larvatus) is fond of these high trees, and flies up and down the kloofs uttering its loud pleasant cry. Besides this cry it possesses an excellent song, with clear mellow notes. Its bright yellow plumage and black head would make it a handsome cagebird, but it is difficult to obtain the young. The Golden Oriole (O. galbula) is much rarer, and we met with it only south of Natal.

Turdus olivaceus is common in all the woods, and is, perhaps, our best songster. When startled it flies off with a chattering cry, like that of the English Blackbird. The Rock-Thrush (Monticola rupestris) is a handsome species inhabiting rocky places and kranzes. It sings its short sweet song while perched on a small tree growing among the rocks. The bright blue head of the male bird is a striking contrast to the rest of the plumage, and the red tail, spread out when flying, is very conspicuous. Cossypha caffra is a really good songster, and its sweet notes may be heard to advantage in the early morning before daybreak. our "Redbreast," and has the Robin-like habit of jerking up its tail as it hops about looking for insects. Cossypha bicolor has a variety of loud monotonous call-notes besides its pleasant song. It is of a retiring disposition and keeps to the cover of the thick bushes.

The "Top-knot Thrush" (Pycnonotus capensis) is abundant everywhere. Like the rest of the Bulbuls, it keeps more to the high trees than the true Thrushes. The "Top-knot" has a few agreeable notes; it is a noisy, bold bird, and if it sees a snake or anything else to alarm it, it sets up a loud cackling. It is rather a nuisance in a garden, being

fond of papaws, loquats, and other soft fruits. The Green Bulbul (Andropadus importunus) is heard everywhere in the bush-lands, pouring forth its blithe song from the topmost branches of tall trees; it has also a loud shrill call-note. It makes its presence known either by chirping or singing when most other birds are silent, and so earns its scientific name. It creeps nimbly among the foliage, clinging to the nether side of the branches, searching for insects or picking off the berries. Colius striatus goes about in small flocks, which are generally found in the scrub on the outskirts of the bush. They have the peculiar Parrot-like habit of crawling about the branches with their heads downward. During their short and rather heavy flights they utter a stridulous cry, which seems to be the only sound they make. The Coly has curious short fur-like feathers, from which the Dutch call it, not inappropriately, the "Muisvogel," or Mouse-bird. measures, including the long stiff tail,  $12\frac{1}{2}$  inches.

There are plenty of Hawks here, as in most parts of South Africa. Buteo jackal, which gets its scientific name from its cry being supposed to resemble that of the jackal, is a heavy sluggish bird, and often remains for a long time motionless on the branch of a high tree; but should a rat or a small monkey approach, it is suddenly grabb d before it is aware of the proximity of its dangerous foe. We once procured a young bird of this species and kept it tame for several months, when we gave it its freedom; but it continued to visit us and was always glad of a feed of raw meat.

The African Goshawk (Astur tachiro) is very bold and destructive to poultry: we have seen it dart down and carry off a full-grown fowl within a few yards of the spot where we were standing. When pursuing a flock of Pigeons, its plan is to separate one from the main body, and if it manages this, it soon succeeds in bearing off its prey.

Accipiter minullus is a beautiful little Hawk, not larger in the body than a Thrush, but although so small it is quite as fearless as its larger cousins. A specimen we obtained was taken while vigorously assailing a hen with a brood of chickens, which she was doing her best to defend; it had actually grasped the fowl by the head, and would probably soon have overcome her had it not been disturbed. We kept one of these little birds in a cage, but it never lost its savage nature, and would not allow any other bird to be confined with it. This group of Hawks grasp their prey by an oblique swoop, and do not pounce upon it, like other species. It is astonishing with what speed they can fly through the trees in spite of the branches, which one would think would form a serious obstacle to such rapid motion.

The Black Hawk (Lophoaëtus occipitalis), which is really an Eagle, is handsomely crested, and its legs, covered to the toes with white feathers, are a curious contrast to its black body. It is often seen perched on the branch of a dead tree watching the ground for mice, which constitute its principal food, though it does not despise the larger insects, such as locusts. In its nature it is most inoffensive, and rarely kills even small birds. We have kept an example in confinement, when it makes a nice pet; but it is naturally very tame, and will permit of such near approach that the Kafirs have given it the name of "Isipumongati," or "The Fool." Its voice is a loud piercing shriek.

Elanus cæruleus, as well as the Kestrel, keeps to the outskirts of these woods. Although this Hawk is said to feed chiefly on insects, it killed a canary which we had brought from Capetown: the cage was fixed to a tree, when the savage little creature suddenly darted down and transfixed the poor bird between the bars. We obtained a young one of this species and kept it tame for some time. It is a very noisy bird, with a shrill cry.

Tinnunculus rupicola, called the "Rock-Falcon," is very partial to high kranzes, in the holes of which it builds. It is constantly seen hovering over the veldt in search of mice. We once took two young birds from a hole in the rocks, and they became so tame that they used to fly about the place and come down regularly to be fed. We have taken the cggs of a large Kite (Milvus ægyptius) out of a nest built in a high tree: they are white spotted with red, and 2 inches long.

While here we heard of the "rinderpest" which had swept off 600,000 cattle in Bechuanaland, and was advancing with rapid strides through Rhodesia and the Northern Transvaal. To prevent it spreading, the strictest regulations were made regarding the movement of oxen from one district to another, and we were detained here longer than we wished; but at last we got a Boer, who was on his way home, to take us to the border of Zululand. We were now on the banks of the Umkusana, a small stream which flows into the Umkusi, and is sparsely wooded, with small thorns growing on the hillsides in poor-looking soil. Hearing that the Umkusi was better wooded and a good place for birds, we took a two days' journey across country to the Umkusi "Poort," which is the point where the river cuts its way through the Lubombo mountains, the lofty bluffs and kranzes of which were visible long before we reached it.

Leaving the stony kopjes, we passed over extensive mimosa-covered flats, where we sighted a jackal looking uncommonly like a dog as it trotted away, and shot a huge black *imamba* snake 10 feet long, the bite of which is almost instant death. Hastening down the hill, we nearly stumbled over another enormous snake that was lying across the path, and which was probably its mate. We were glad enough to come to the end of this tedious journey and rest alongside the river, under the shadow of the great Echanene, a lofty spur of the Lubombo. This was about the roughest piece of walking we had yet accomplished.

Bee-eaters (Merops bullockoides) appear sometimes to assemble in large flocks, and we noticed as many as fifty covering a few trees. Laniarius quadricolor was plentiful in the thickets here. Its cry during the pairing-season is very musical, and sounds exactly like "Bob, bob, bob o'link," oft repeated. Here we first met the Zambesi Green Shrike (Laniarius gularis), which hops about the thick scrub and has a low chuckling note. A small Green Parrot with yellow under wing-coverts is found here, as in most of the thorn country north of the Umfolosi.

Grey Plantain-eaters (Schizorhis concolor), in parties of

two or three, are often met with climbing about the thorntrees, uttering their extraordinary cry like the long drawnout mewing of a cat. Indicator minor, the Lesser Honeyguide, was generally solicitous for us to follow it in quest of honey. It has a peculiar chattering cry which it emits when it wants to lead a person to a bees' nest, and when followed flies on from tree to tree in advance. natives know the value of this bird, and, when it discovers honey for them, put out a portion for it to eat. The large Red Ground-Cuckoo (Centropus senegalensis) was common everywhere. It keeps to the low scrub and is fond of old mealie-gardens. It seems never to fly high, and if disturbed seeks shelter in the neighbouring bushes, from which it never strays far. During the summer its cry is constantly heard, especially in damp weather. Its voice resembles the letter o repeated many times, beginning at a high key and falling low.

The Black Duck (Anas sparsa) used to fly up and down this river. The young birds seem to remain with their parents for a considerable time; we have seldom seen more than two old Ducks together, but have killed as many as five half-grown birds with one discharge.

Having explored this neighbourhood and collected a few birds, we ascended the hill, about three miles long, from the summit of which we could trace the Umkusi, as it wended its way towards the north end of St. Lucia Lake, into which it flows. The magistrate pointed us out spots frequented by herds of buffalo and other large game, and said that he had met with lions when hunting below. The zebra is also found here, as well as the rhinoceros. There is one fair-sized "bush" up here, but it is steep and stony and does not contain many birds. We got a considerable number of the beautiful Blue Lourie (Corythaix porphyreolopha), which feeds on wild figs and berries and keeps mostly to the tops of the trees. The Green Lourie (Corythaix musophaga) is much rarer in Zululand, though so common in Natal. This Lourie has a loud croaking cry, which it utters principally at sundown, and flies off when alarmed with a cry not unlike that of a Pheasant. Louries are easily reared and look very

0

handsome in confinement. Guinea-fowl are plentiful; we found them very good eating, not unlike turkey.

After spending a few weeks here we descended to the flats, and five hours' walking through the thorns brought us to the wide Pongola river, which forms the northern boundary of At the drift there is a boat and an elevated wire with a eage for conveying the mail across when the river is flooded. We were told that it is sometimes impassable otherwise for six months at a time. There are a great many crocodiles here: two or three times we a saw big yellow brute lying in the shallows or airing itself on a rock. The White-headed Fish-Eagle frequented this river and used to float overhead, uttering its extraordinary loud, clear cries. The river Ifafa in Natal was for some years a favourite haunt of a pair of these birds, and we succeeded in shooting one of them and breaking its wing. It was very savage when taken, lying on its back with its claws extended; but we took it home, operated on its broken limb, and kept it chained by one of its legs to a perch near the house. It ate readily any raw meat, but preferred fish when obtainable; the only trouble we had was its propensity to kill the fowls should they happen to come within reach of its chain. This Eagle was very sharp-sighted, and, if it saw another of its own species high up in the air, used to call to it with its human-like voice. We had it for nearly two years, when it suddenly died-poisoned, we believe, by a native for the sake of its heart, which is used as a love-charm. The two Hornbills Toccus flavirostris and Toccus nasutus we saw here, but they are not so numerous as at the White Umfolosi. The Crested Hoopoe (Upupa africana) flies about among the thorn-trees on these flats, where we constantly hear its curious "hoophoop." Its flight is slow and undulating, and it does not rise high above the ground. The Black Hoopoe (Irrisor erythrorhynchus) is a bush-bird, but it also inhabits copses on the river-banks. It has a loud chattering cry. Its disposition is restless and active; it is always on the alert, scrutinizing the bark of the trees, and jerking its long tail over the branches while it inserts its curved bill into the crevices to extract its insect-food.

On the banks of this river we shot a specimen of the African Buzzard-Eagle (Asturinula monogrammica). We also got specimens of the Wattled Starling (Dilophus carunculatus), which we had not previously met with. Among the other birds observed along this river should be mentioned the three Sun-birds Cinnyris verreauxi, C. gutturalis, and C. talatala; the Kingfishers Ceryle maxima, Halcuon albiventris, and H. orientalis; the Hornbills Bucorax cafer, Buceros buccinator, and Toccus melanoleucus; the Shrikes Laniarius quadricolor, L. poliocephalus, L. rubiginosus, L. sulphureipectus, L. gularis, Prionops talacoma; the Beeeaters Merops bullockoides and M. pusillus; as well as the Roller Coracias caudata. We also noticed some Vultures (Gyps kolbii) nesting in the large fig-trees. They must lay early, as they appeared to be sitting in July. There were some large Bats here; one which we caught measured 6 inches, with a stretch of wing of 22 inches.

Wading the now shallow stream, we pitched tent in the newly-annexed territory of Sambana, a Tonga chief. the 22nd July, after a very hot walk of fifteen miles over level country thinly sprinkled with thorns and other small trees, we arrived at the large river Pongola, which we crossed, and encamped on the far side under some huge fig-trees which grow all along the left bank of the river. Here we remained over a month, and although it was still winter some of the trees were coming into flower. birds we found the Blue Lourie, the Zambesi and Natal Bush-Shrikes, Green Pigeons, Large Pied Hornbills, Rollers, Bee-eaters, and a large flock of Wattled Starlings, called Locust-birds (Dilophus carunculatus), feeding on their favourite food. A mile down the river we came across quite a colony of Gyps kolbii. We could see them sitting in their large stick-nests high up in the branches of the fig-trees, but could not reach them, the trunks being destitute of low branches. One of the handsome White-headed Eagles (Haliaëtus vocifer) had built its nest in a high tree on the other side of the river near our tent; as the female was sitting close, we suppose she had eggs. Three kinds

of Hoopoes are found here: the Crested, so much like the English species, frequenting the open ground, while the Black and the Red-billed species prefer the more wooded parts.

On the 31st August we obtained bearers and started for Sambana's, which is now part of Zululand. We fixed our tent under the trees on the outskirts of the great Hlatikulu forest, which covers a large portion of this part of the Ubombo range. The natives, who are more Tonga than Zulu, were very inhospitable, and we should have fared badly but for Sub-Inspector Gillson, of the Zululand Police, who was located with his men about two miles off, and who supplied us with all that we required. We built here a hartebeest-hut as a protection from the weather. This is, perhaps, the simplest form of building that can be made, being merely rafters or poles resting on the ground and thatched with grass, looking like the roof of a house without walls. Where long grass is unobtainable, large antelopeskins are used-hence its name. We were repaid for our trouble in coming here, as we obtained some very interesting birds, one of which was Livingstone's Plantain-eater (Turacus livingstonii), the finest of the three South-African Louries. We knew it to be an unusual species by its cry, before we shot it; it much resembles Turacus persa, but has a taller and more conspicuous crest. We also shot a large Crested Guinca-fowl, probably Numida verreauxi, although it does not quite tally with the description given by Mr. Elliot in Dr. Sharpe's book, there being no red on the throat of the male bird. Its plumage is far more beautiful than that of the crowned species, which keeps more to the flat lowlands. So far as we know, the Ungove is also the only habitat of Stactolæma woodwardi.

Mr. Stewart, the magistrate of the Inguavuma district, lent us six court messengers to return as far as Nongoma. This was the longest walk we have taken out here, being a distance of 80 miles; and we had to travel on short allowance of food. A large part of the way was through the tsetse-fly belt, so the carriage of goods is very precarious.

226

Our next stopping-place for any length of time was at the river Ivuna, where we remained six weeks and got a number of birds. The country is well wooded on both sides of the stream. We found a nest of the Hammerkop or "Mudlark" (Scopus umbretta); it was an enormous construction of sticks, dried grass, and reeds, dome-shaped and loosely put together, with the entrance at one side. It was built on a ledge of the cliff over the river, and the only way to get at the eggs was to remove the roof. There were four white eggs, like those of a small fowl, but more tapered at one end. We also found several pairs of the Magpie-Shrike (Urolestes melanoleucus) nesting in the thorn-trees, and secured their eggs-round, pinkish-white, dotted with brown and purple. These birds keep up a lond and rather harsh whistling. We took one white egg from a nest of the Red Ground-Cuckoo (Centropus senegalensis): the nest was placed at the top of a euphorbia, the spiny nature of which makes the tree difficult to climb. The young are curious little creatures, covered with long brown hair, not down like other birds. We shot some Black-bellied Korans (Otis melanogaster), which were pretty common. The male bird disclosed its whereabouts by gobbling like a turkey. One night a Koran came to our tent and laid an egg close to the door; it measured 21 inches, and was cream-coloured, much blotched with black and brown. We got three species of Plover—the pretty little Senegal Plover (Cursorius senegalensis), which we had not met before; the Crested Plover; and the Dikkop, Of the latter we got an egg, the size of that of a Partridge, white speckled and irregularly marked with brown and purple, especially at the large end. The call-note of this bird is loud and sounds like the word "cherawa" repeated three times at intervals accompanied with flapping of wings. Among other birds we obtained here were the Long-tailed Cuckoo (Coccystes cafer)—a favourite bird with the natives, who call it the "Inkanku," -the Grey Lourie, and the Senegal Kingfisher. We saw and heard the South-African Cuckoo (Cuculus gularis) for the first time.

On the 13th December we secured the use of a tented waggon and left this district. We outspanned above the Hlabatini Mountains on an extension of the Inkonjeni range, passed Moore's store near the Umfolosi, and soon reached Melmoth. Next day, descending the deep cuttings of the great Izulweni Hill, we pitched our tent in a pretty spot not far from the banks of the Umhlatusi. Everything looked beautifully green here, and we soon obtained quite a number of birds. The notes of the Glossy Cuekoos, Crabeaters, and Trogons, as well as the sweet song of the Yellow-billed Thrush (Turdus libonyanus), were heard all round, while in the reeds the scarlet Bishop-bird, the Cabanis' Weaver (Hyphantornis cabanisi)—not hitherto known so far south—and Kafir-Finches were busy nesting. Many trees on the banks of the river were laden with the hanging nests of the Common Speckled Weaver. In the purse-shaped nests of the Bishop birds were bright blue eggs, the Cabanis' Weaver laying white, and the common variety more or less spotted eggs. We found also a nest of Oriolus larvatus. It was well made of fine grass, fastened to the underside of a forked branch and covered outside with lichen, and contained three eggs, white spotted and streaked with black. Here we shot an Oriole which answers to Dr. Sharpe's description of the young male of the Golden Oriole, but we have not met with the latter in its usual plumage. There may possibly be two distinct species. Another bird which has been considered to be the female of the Black Searlet-ehested Sun-bird (Cinnyris gutturalis), we think, may be a distinct species; it is a brown-grey bird with the searlet chest. The black birds are always with us, but the grey varieties make their appearance late in the spring, at which time we have shot many males in full plumage. Among the long sedge-grass we shot some Finehes, black with yellow and white shoulders, which we could not identify. On the other side of the river, near Mr. Louw's Cross Roads Hotel, where the country is parklike, we got some birds. Here the Fiscal Shrike is very common, and we obtained the Wryneck (Iynx pectoralis),

which is a rare bird in Zululand, as well as the very pretty "Blue birds," as we call the Glossy Thrush (Pholidauges verreauxi). We found here the stick-nest of the Hatadah Ibis in a tree overhanging a small stream. It contained two large eggs, green smeared and blotched with brown, measuring  $2\frac{1}{2}$  inches long. The Common Oxpecker was nesting in the holes of trees; the eggs are white. The rarer species (Buphaga africana) we found only at the Umbegamusa, between the Black and White Umfolosi rivers. We got a nest of Turdus libonyanus near the river in one of the shrubs; it had four eggs, white blotched with red. There were a few of the Green-and-Yellow Parrot nesting in holes in dead trees in the open; we found one egg, pure white and nearly round. After a short stay here we returned to Eshowe.

## XX.—On the Grey Shrikes of Tunisia. By Joseph I. S. Whitaker, F.Z.S.

In my Notes on Tunisian Birds in 'The Ibis' for 1896 (p. 94) I referred to Lanius fallax a specimen of Grey Shrike which I had obtained the previous year in the South of the Regency, and which differed entirely from the ordinary form of Grev Shrike found in that country. In the course of a journey I made in the spring of the present year (1897), when travelling in a part of Central Tunisia not previously visited by mc, I met with Grey Shrikes exactly similar in plumage-colouring and marking to the above-mentioned specimen referred by me to L. fallax. In the same district I also met with other Shrikes, some of which resembled more closely L. algeriensis, and some rather approximating to L. elegans. I found these birds in the district between Kairouan and Djilma, which immediately adjoins the southern spurs of the Eastern Atlas Mountains and lies between them and the more desert country further south. The character of the country in this district, as might be expected, partakes both of that of the Tell, or region north